

ANALYSIS OF FINANCIAL DERIVATIVES**ABSTRACT**

A method for trading in a financial derivative of an underlying asset includes determining a trend predictive of a future value of the asset and a predicted variance of the future value. Responsive to the trend and the variance, a density function is calculated, which is indicative of a probability distribution of the value at a first time in the future. Based on the density function at the first time, the density function is recalculated to find the probability distribution of the value at a second time, subsequent to the first time, and a trading decision is made with regard to the derivative of the asset based on the density function.